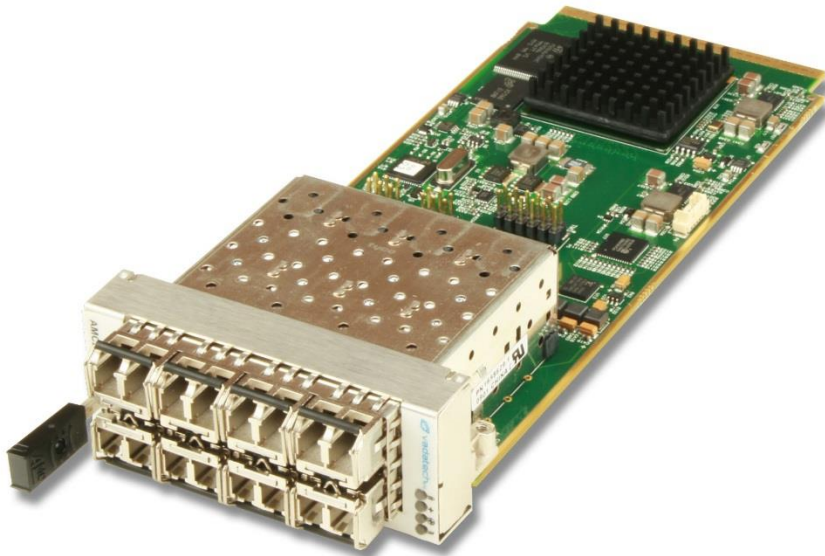


AMC216 – 10 Port Managed Layer 2 Switch

10 Port Managed Layer 2 Switch



KEY FEATURES

- Managed Layer two switch
- Eight GbE Ethernet ports via front panel SFP
- Any combination of Fiber/Copper is allowed
- Two GbE routed to the rear
- Support up to 8K MAC address
- 4K IEEE 802.1Q VLANs
- VLAN-based packet filtering
- Packet classification using IEEE802.1p QoS
- 9K Jumbo frames
- Spanning tree
- Mirroring
- QoS
- SNMP and RMON
- AMC.2 compliant

AdvancedMC™

Benefits of Choosing VadaTech

- Design utilizes proven VadaTech subcomponents and engineering techniques
- Electrical, mechanical, software, and system-level expertise in house
- Full system supply from industry leader
- AS9100 and ISO9001 certified company

The AMC216 is a single-width, full-height AdvancedMC™ (AMC) based on the AMC.2 specification. The AMC216 provide 8 front panel GbE Ethernet ports via SFP. It has two additional ports which are routed to ports 0 and 1 per the AMC.2 specification.

The AMC216 allows a mix of SFP interface (Fiber media such as SX or LX transceivers) and/ or copper interface on a single module.

The switch is managed via http and supports a rich set of features such as VLAN, Spanning tree, QoS, Mirroring, etc.

AMC216 – 10 Port Managed Layer 2 Switch

MANAGED LAYER 2 GBE

The GbE layer two managed switch fabric routes eight GbE to front panel and two to the rear.

CONFIGURATION

- Ethernet/IEEE 802.3 Packet size (64 bytes to 1522 bytes)
- Jumbo packets up to 9216 bytes

L2 SWITCHING

- Supports up to 8K MAC address
- Line rate switching for all packet sizes
- Independent VLAN learning
- VLAN flooding for broadcast and DLF packets
- Hardware-based address learning
- Six CPU-managed learning (CML) modes per port
- Hardware-and-software-based aging
- Software insertion/deletion/lookups of the L2 table
- Same port bridging supported
- Station movement control

L2 MULTICAST

- 4K VLANs
- Protocol-based VLANs
- IEEE 802.1p
- IEEE 802.1Q
- Independent VLAN learning (IVL)
- Ingress filtering for IEEE 802.1Q VLAN security
- VLAN-based packet filtering
- MAC-based VLAN

SOURCE PORT FILTERING

- Egress port block masks
- Trunk group blocking masks

STORM CONTROL PER-PORT:

- Unknown unicast packet rate control
- Broadcast packet rate control
- Multicast packet rate control

SPANNING TREE:

- IEEE 802.1D spanning tree protocol (single spanning tree per port)
- IEEE 802.1s for multi spanning trees
- IEEE 802.1w rapid spanning tree protocol-delete and/or replace per:
 - Port
 - VLAN
 - Port, per VLAN
- Spanning tree protocol packets detected and sent to the CPU

DOUBLE-TAGGING:

- Unqualified learning/forwarding
- IEEE 802.1 Q-in-Q

MIRRORING

- Ingress/egress mirroring support
- Mirror-to-port receives the unmodified packet for ingress mirroring
- Mirror-to-port receives the modified packet for egress mirroring

CONTENT AWARE FILTER PROCESSING

- Intelligent Protocol Aware processor with backward-compatible, byte-based classification option
- Parses up to 128 bytes per packet
 - 512 ACL rules support
- Multiple matches and actions per packet
- ACL-based policing
- Ingress/egress port based filtering
- MAC destination address remarking
- Traffic class definition based on the filter
- Programmable meters allows policing of flows
- Metering granularity from 64 Kbps to 1Gbps
- Multiple look-ups per packet
- Metering support on ingress ports and CPU queues

QOS FEATURES

- Four QoS queues per port
- Per-port, per QoS drop profiles
- Port level shaping
- Traffic shaping available on CPU queues
- Programmable priority to QoS queue mapping
- Provides two levels of drop precedence per queue
- Strict Priority (SP), Weighted Round Robin (WRR), and Deficit round Robin (DRR) mechanisms for shaped queue selection

DSCP

- DSCP-based prioritization
- Back pressure metering
- DSCP to IEEE 802.1p mapping

PORT SECURITY

- Per port blocking
- Supports IEEE 802.1x
- MAC address blocking

AMC216 – 10 Port Managed Layer 2 Switch

DOS PREVENTION

- Denial of Service detection/prevention

MANAGEMENT INFORMATION BASE

- SMON MIB, IETF RFC 2613
- RMON statistics group, IETF RFC 2819
- SNMP interface group, IETF RFC 1213, 2836
- Ethernet-like MIB, IETF RFC 1643
- Ethernet MIB, IEEE 802.3u
- Bridge MIB, IETF RFC 1493

BLOCK DIAGRAM

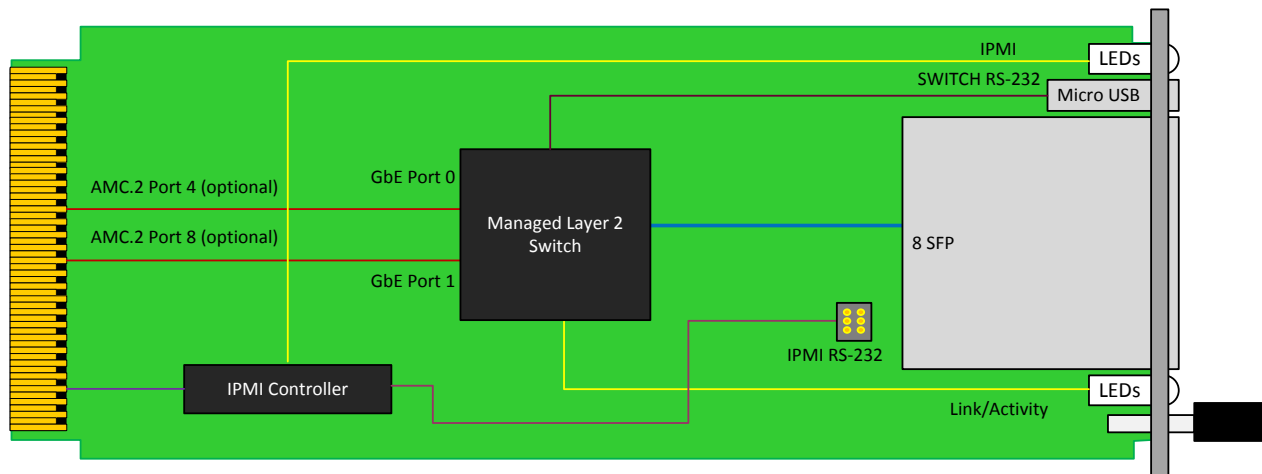


Figure 1: Functional Block Diagram

FRONT PANEL

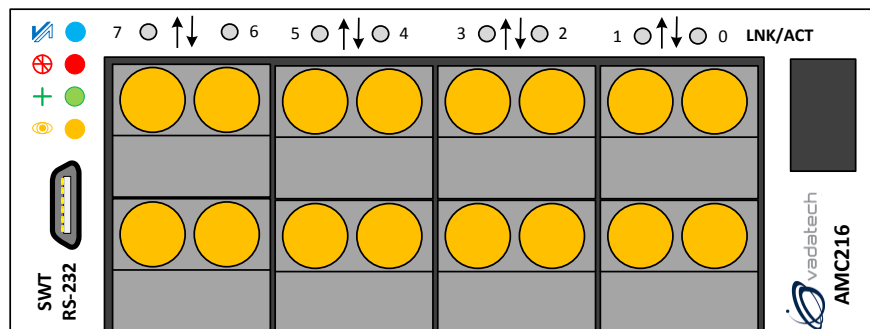


Figure 2: AMC216 Front Panel

AMC216 – 10 Port Managed Layer 2 Switch

SPECIFICATIONS

Architecture		
Physical	Dimensions	Single module, full-size
		Width: 2.89" (73.5 mm)
		Depth 7.11" (180.6 mm)
Type	AMC Ethernet	10 Port Managed Layer 2 Switch
Standards		
AMC	Type	AMC.2
Module Management	IPMI	IPMI version 2.0
1000Base-BX	Ports	0 and 1
Configuration		
Power	AMC216	7 W with all fiber transceivers
Environmental	Temperature	Operating temperature: -5° to 45°C (55°C for limited time, performance restrictions may apply), (See environmental spec sheet)
		Storage Temperature: -40° to +85°C
	Vibration	Operating 9.8 m/s ² (1.0 G), 5 to 500Hz
	Shock	30Gs on each axis
	Relative Humidity	5 to 95 per cent, non-condensing
Front Panel	Interface Connectors	8x SFP Connectors
		Switch RS-232 via micro USB
	LEDs	IPMI management control
		Activity/Status LEDs
	Mechanical	Hot swap ejector handle
Software Support	Operating System	Independent
Conformal Coating		Humiseal 1A33 Polyurethane (Optional)
		Humiseal 1B31 Acrylic (Optional)
Other		
MTBF		MIL Hand book 217-F @ TBD Hrs.
Certifications		Designed to meet FCC, CE and UL certifications where applicable
Standards		VadaTech is certified to both the ISO9001:2000 and AS9100B:2004 standards
Warranty		Two (2) years

INTEGRATION SERVICES AND APPLICATION-READY PLATFORMS

VadaTech has a full ecosystem of ATCA and μ TCA products including chassis platforms, shelf managers, AMC modules, Switch and Payload Boards, Rear Transition Modules (RTM), Power Modules, and more. The company also offers integration services as well as pre-configured Application-Ready Platforms. Please contact VadaTech Sales for more information.

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AMC216 – 10 Port Managed Layer 2 Switch

ORDERING OPTIONS

AMC216 – ABC – DE0 – 00J

A = Number of Fiber SX Transceivers

0 = None

x = Number of Transceivers

B = Number of Fiber LX Transceivers

0 = No transceivers

x = Number of Transceivers

C = Front Panel

1 = Reserved

2 = Reserved

3 = Full-size

D = Number of Copper Transceivers

0 = None

x = Number of Transceivers

E = Ports 4 and 8 to Switch Routing

0 = Not Routed

1 = Routed

J = Conformal Coating

0 = No coating

1 = Humiseal 1A33 Polyurethane

2 = Humiseal 1B31 Acrylic

RELATED PRODUCTS



AMC217
10 Port Managed Layer 2, RJ-45



AMC218
8 Port Managed Layer 2, MRJ-21



AMC219
14 Port Managed Layer 2 MRJ-21

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